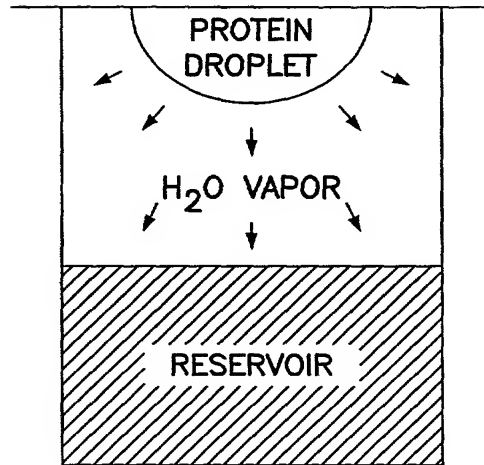
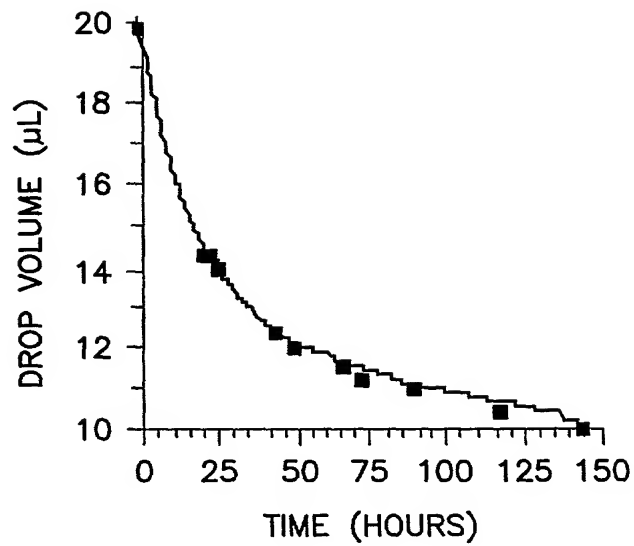


FIG. 1



LINBRO BOX HANGING DROP VAPOR DIFFUSION CHAMBER.

FIG. 2



DROP VOLUME VERSUS TIME FOR A TYPICAL VAPOR DIFFUSION  
EXPERIMENT IN A LINBRO BOX.

FIG. 3

N<sub>2</sub>-VAPOR DIFFUSION INDUCED CRYSTALLIZATION  
BLOCK DIAGRAM FOR DC/PCG

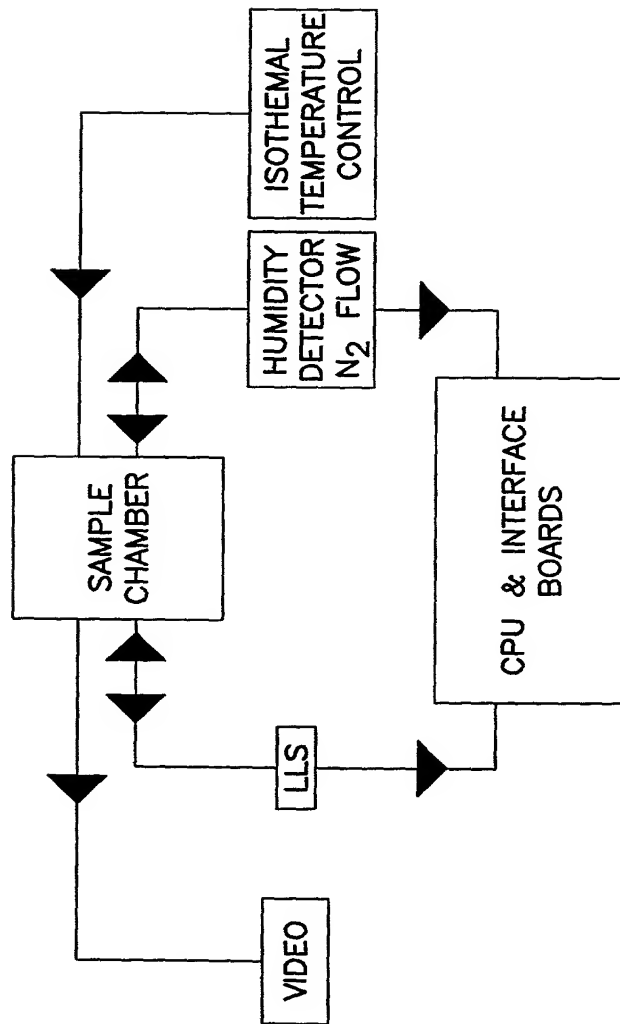
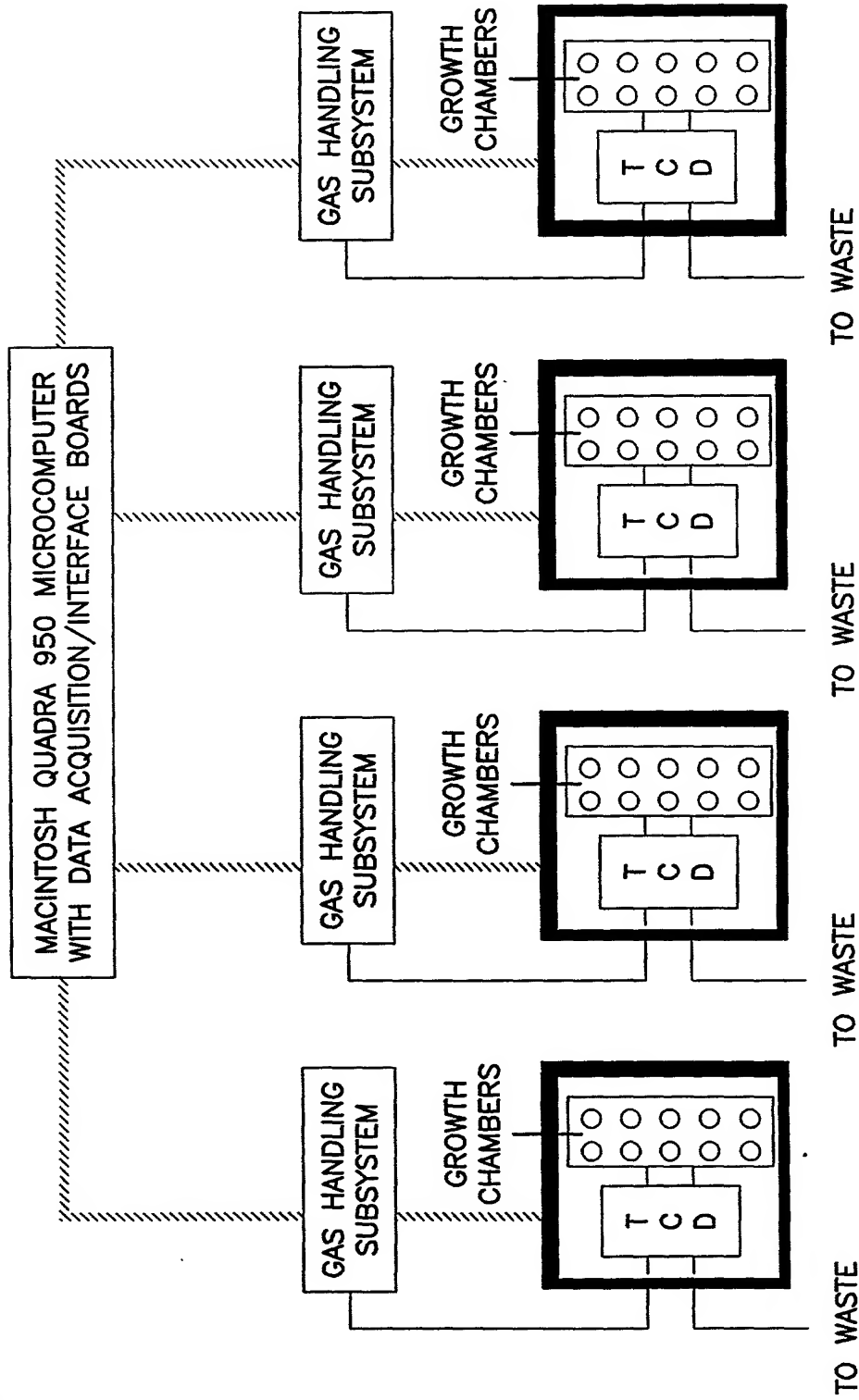


FIG. 4



DYNAMICALLY CONTROLLED VAPOR DIFFUSION SYSTEM.

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FIG. 5

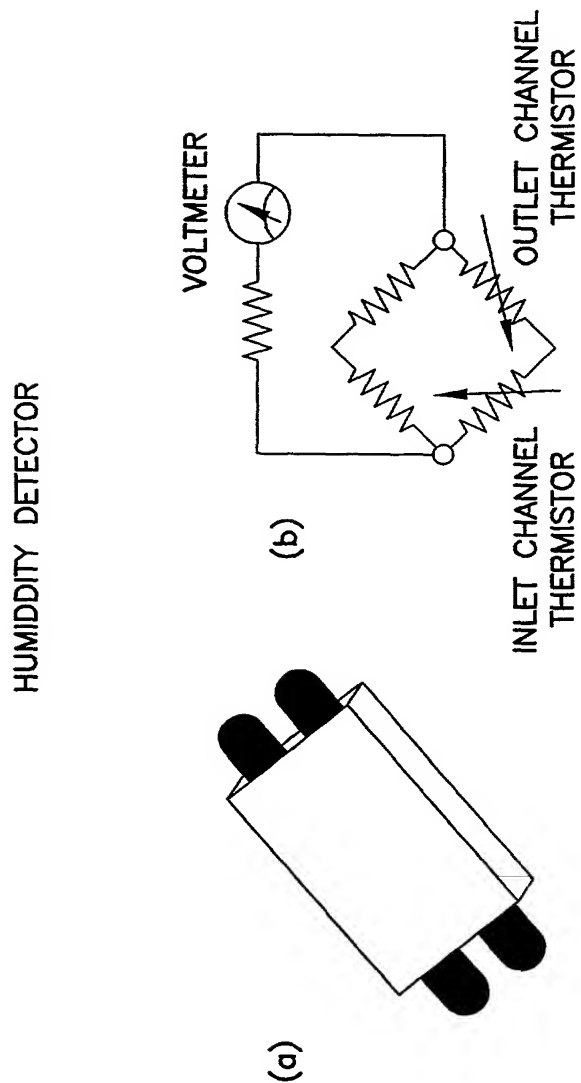
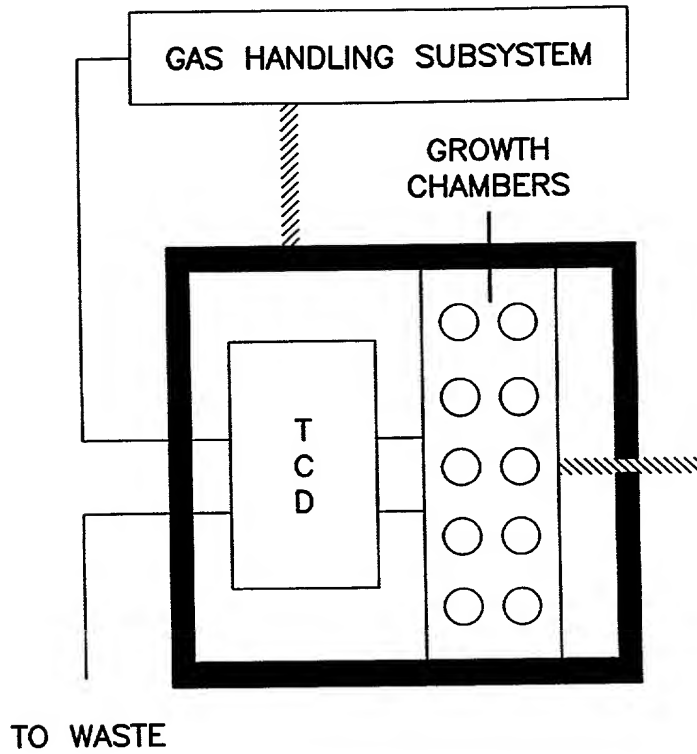


FIG. 6



CLOSE-UP OF TEN CHAMBER GROUP.

FIG. 7

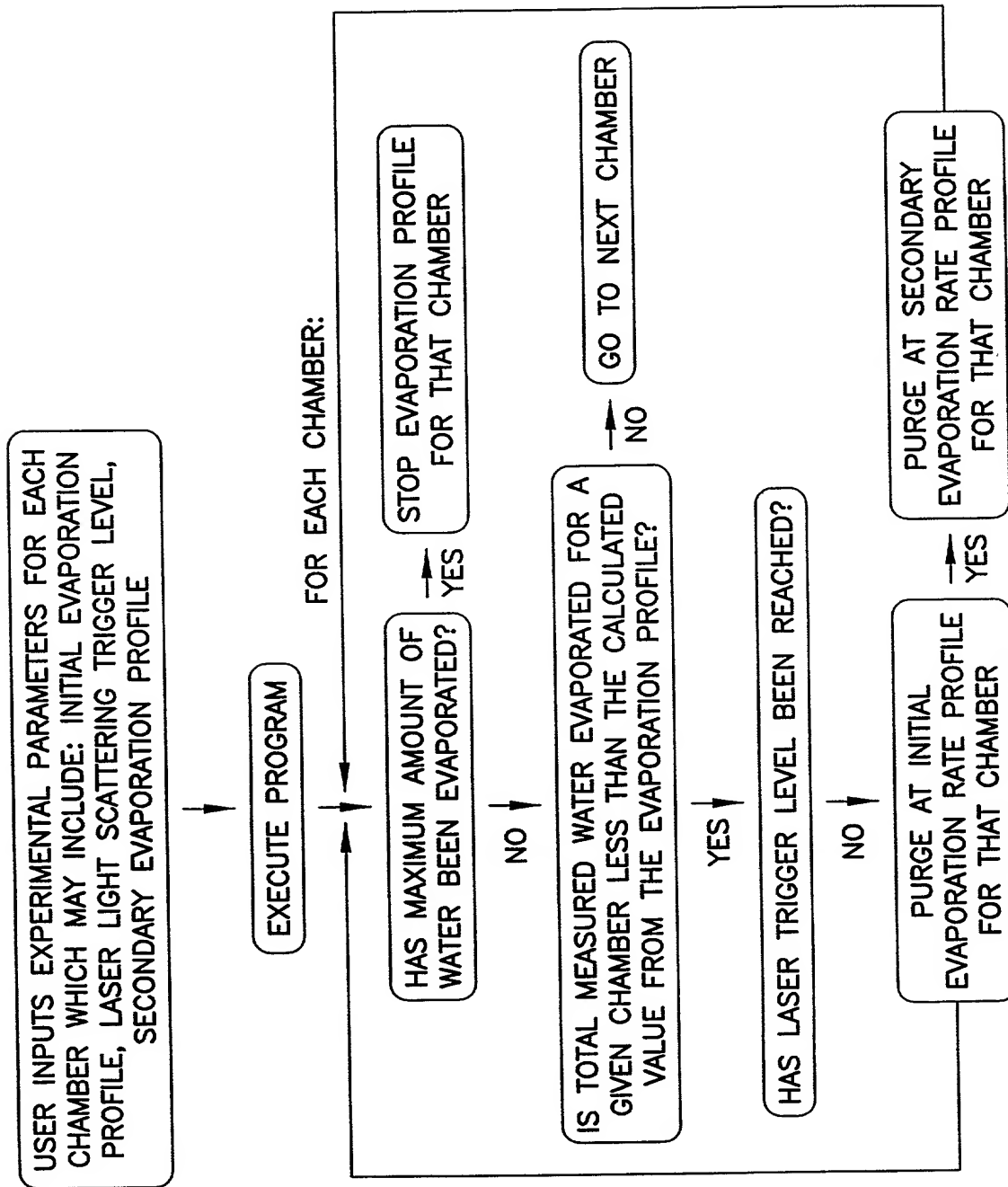
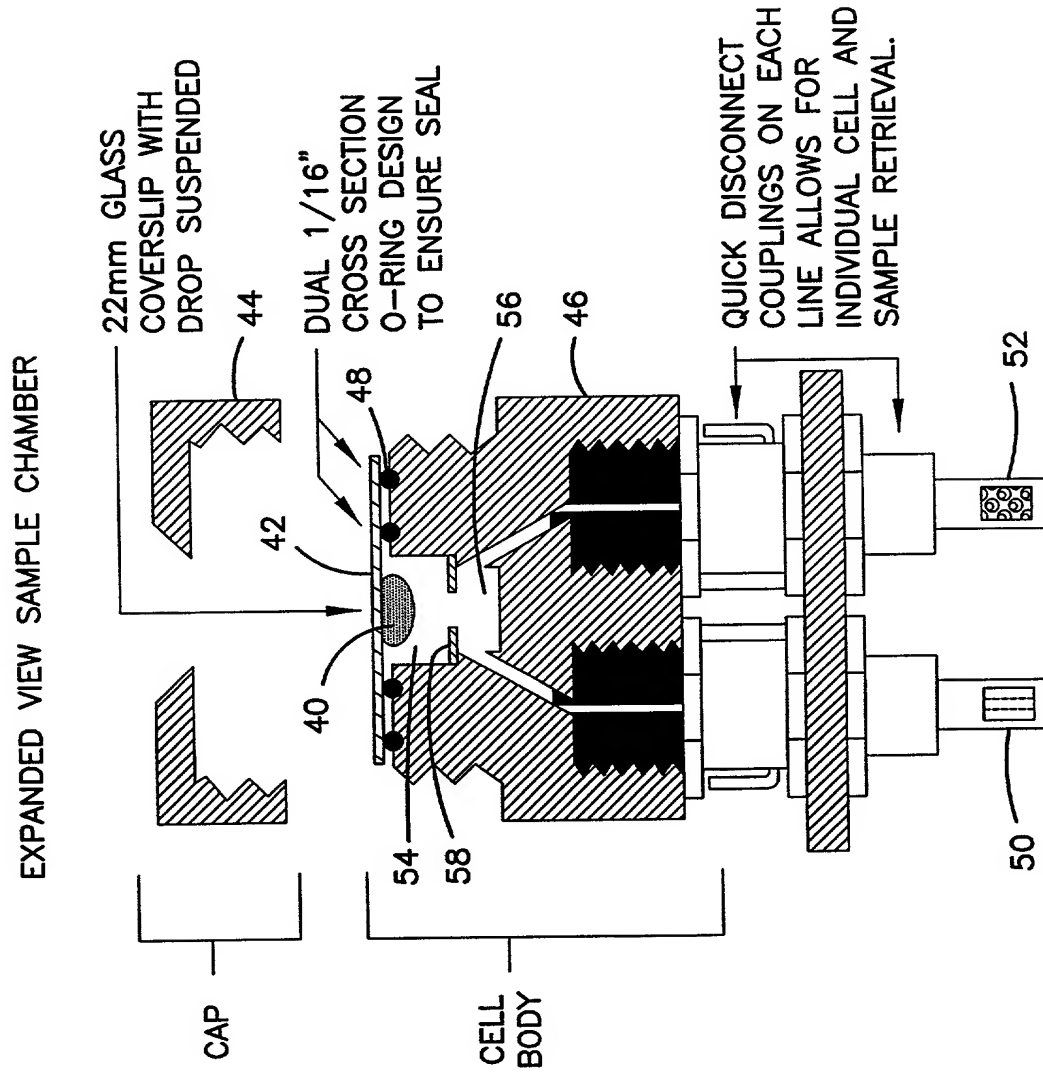


FIG. 8





SIZE AND NUMBER OF MACROCRYSTALS OBTAINED FROM LINEAR EVAPORATION  
PROFILES WITH LINBRO CONTROLS

FIG. 9(a)

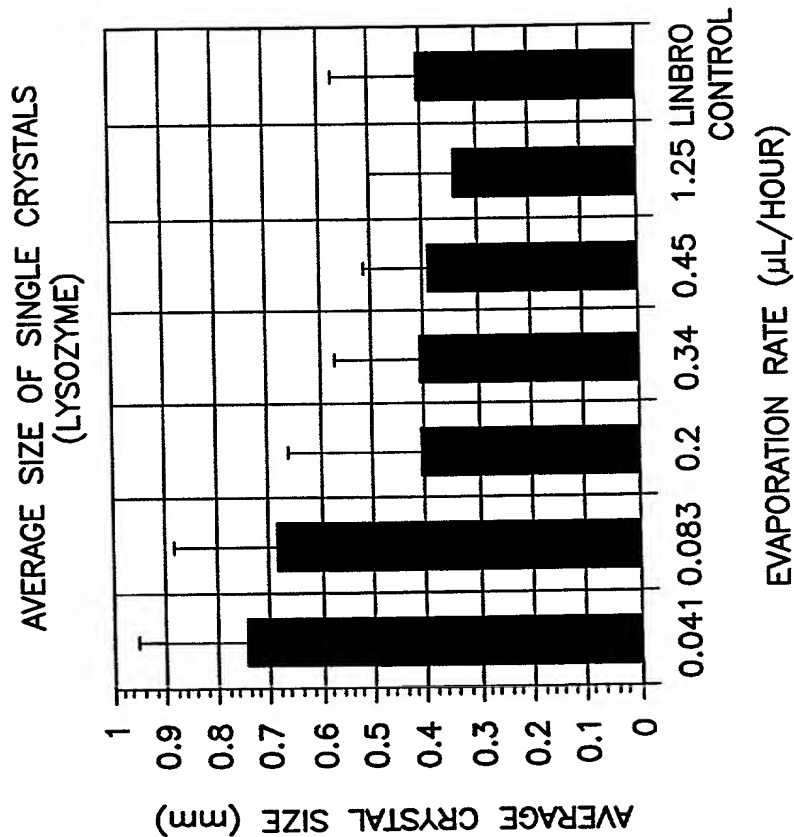
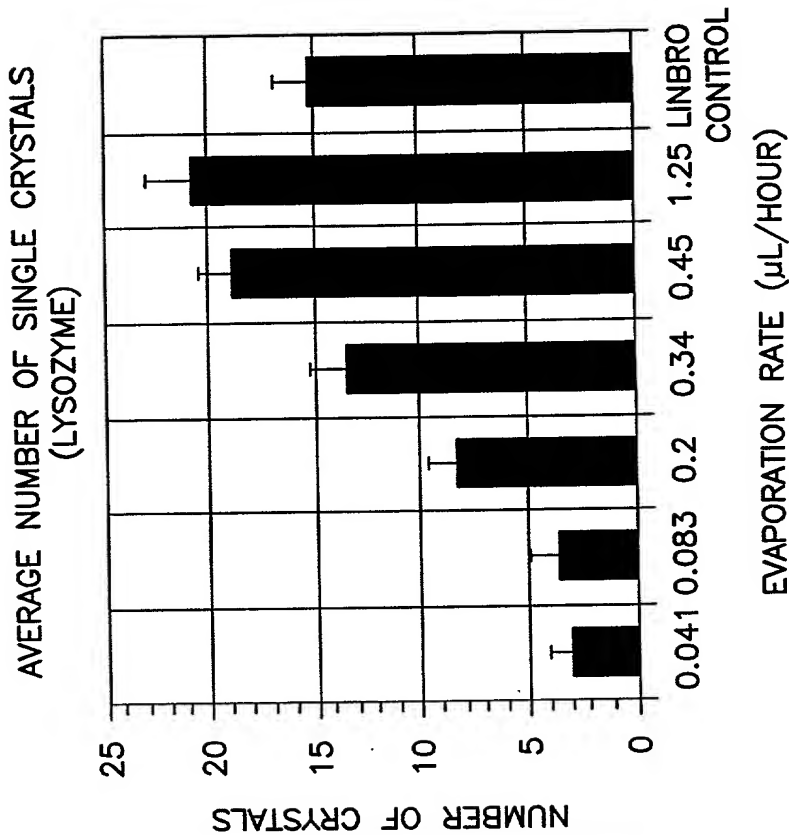


FIG. 9(b)



NOTE: CRYSTAL MEASUREMENTS WERE RECORDED FOR EACH PROFILE  
AFTER REACHING IDENTICAL FINAL DROP VOLUMES

SIZE AND NUMBER OF MACROCRYSTALS OBTAINED FROM LINEAR EVAPORATION  
PROFILES WITH LINBRO CONTROLS.

FIG. 10(a)

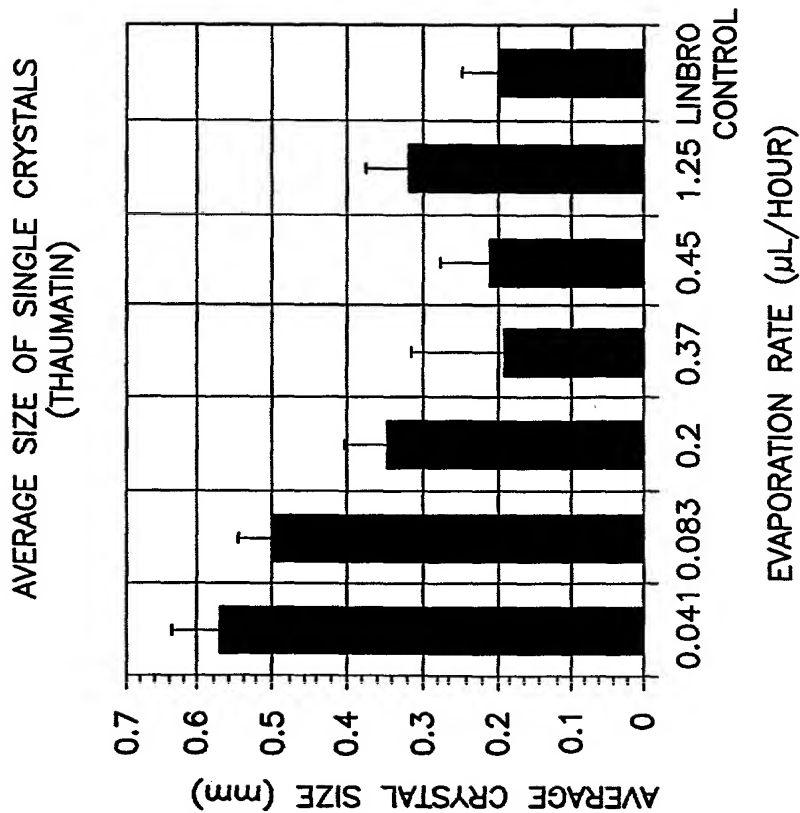
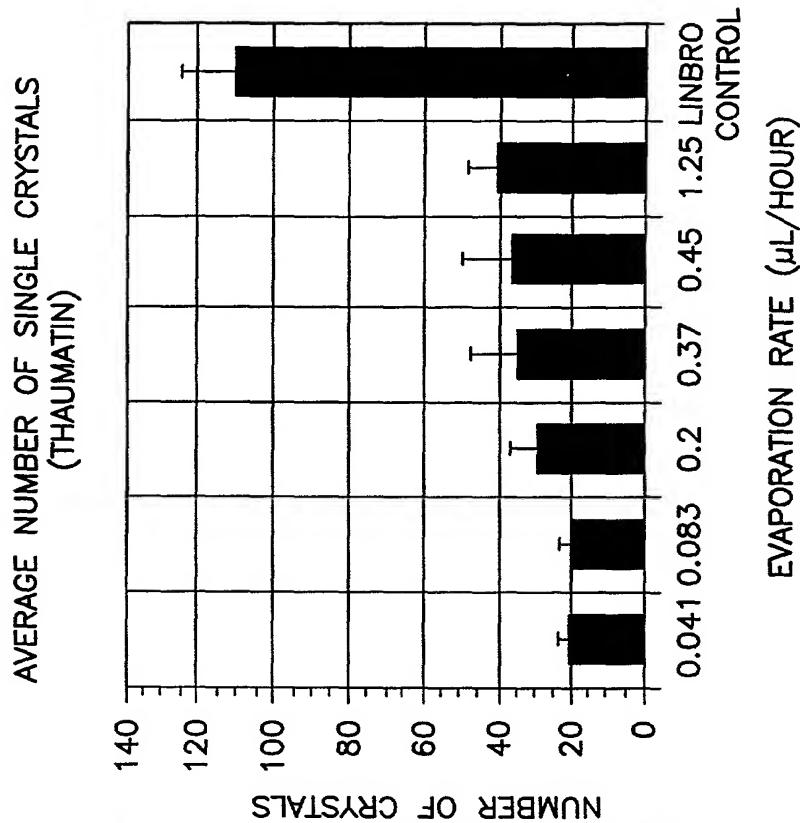
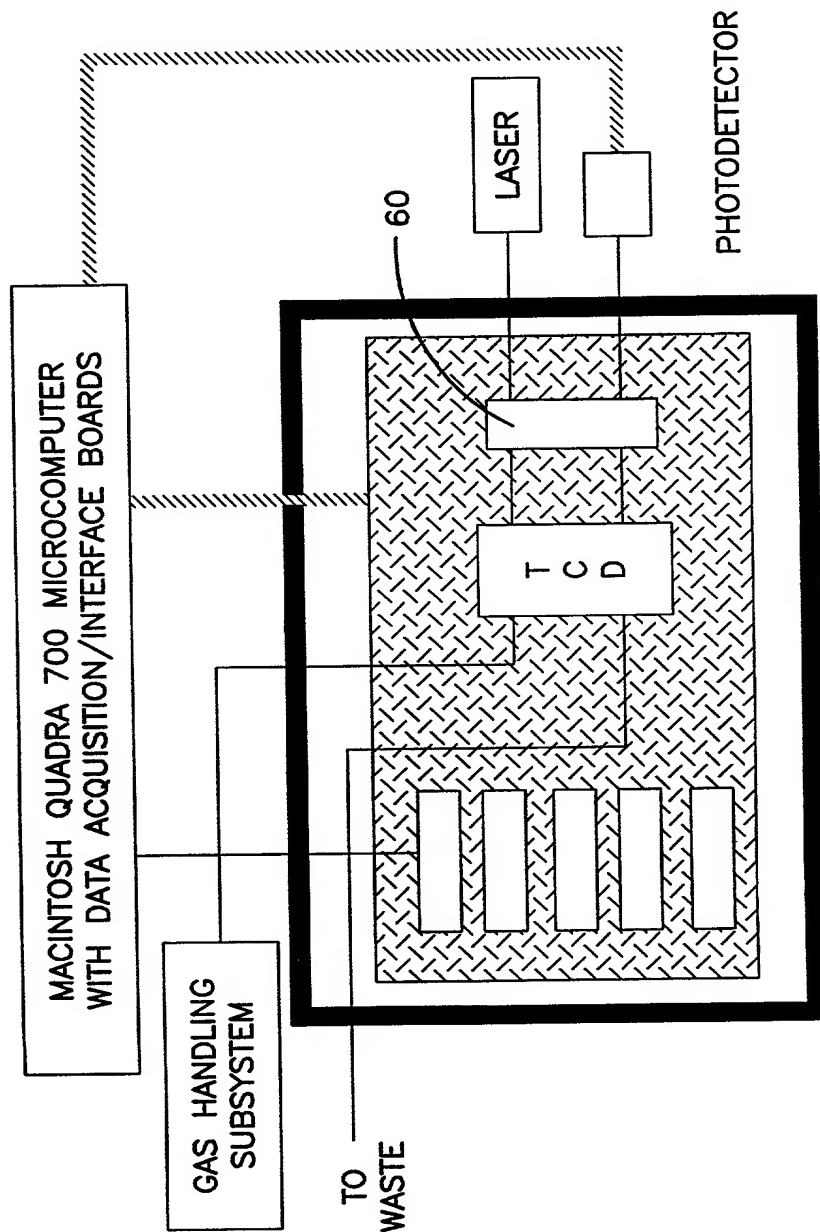


FIG. 10(b)



NOTE: CRYSTAL MEASUREMENTS WERE RECORDED FOR EACH PROFILE  
AFTER REACHING IDENTICAL FINAL DROP VOLUMES

FIG. 11



DYNAMICALLY CONTROLLED VAPOR DIFFUSION CONTROL/FOLLOWER SYSTEM.

FIG. 12

DETECTION OF NUCLEATION BY LASER LIGHT SCATTERING AND  
RESPONSE BY MODIFYING THE RATE OF INCREASE IN  $\sigma$ .

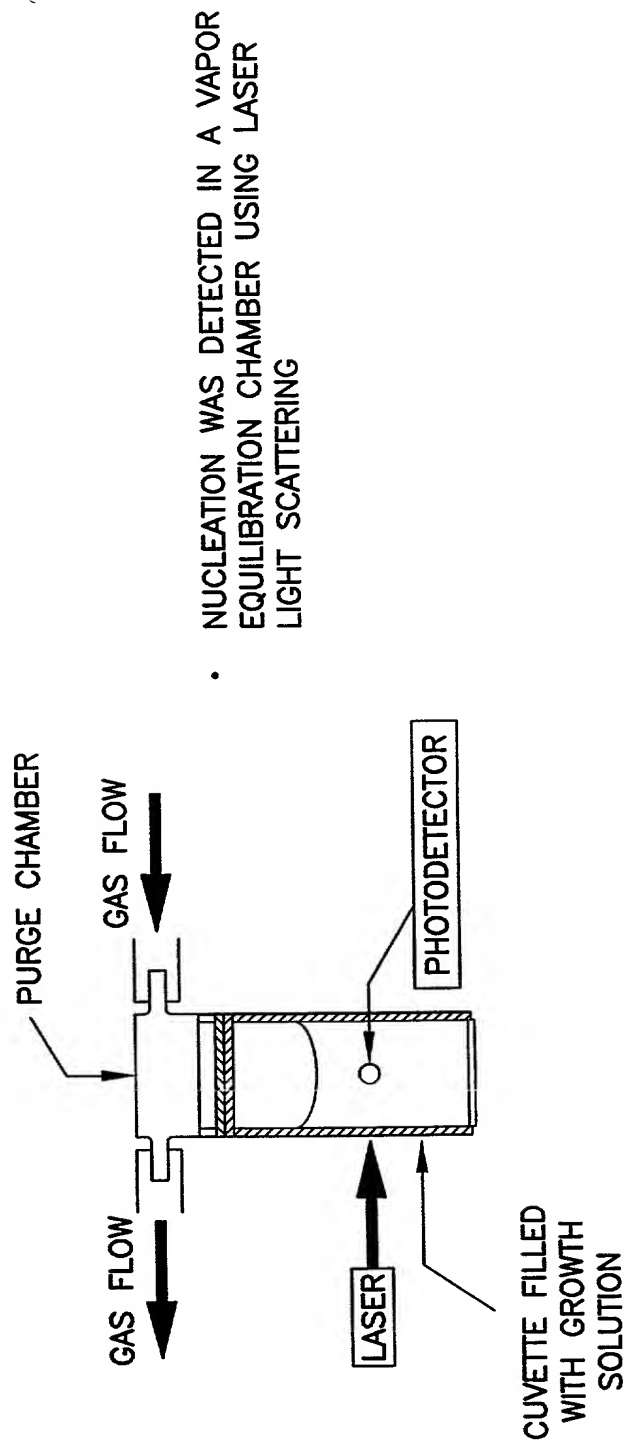
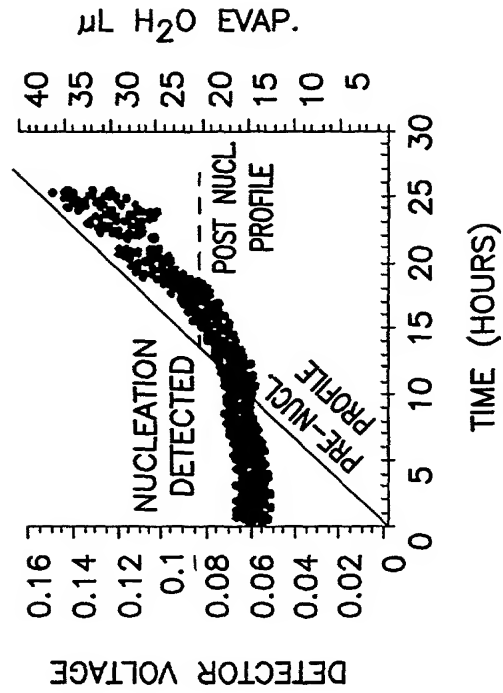


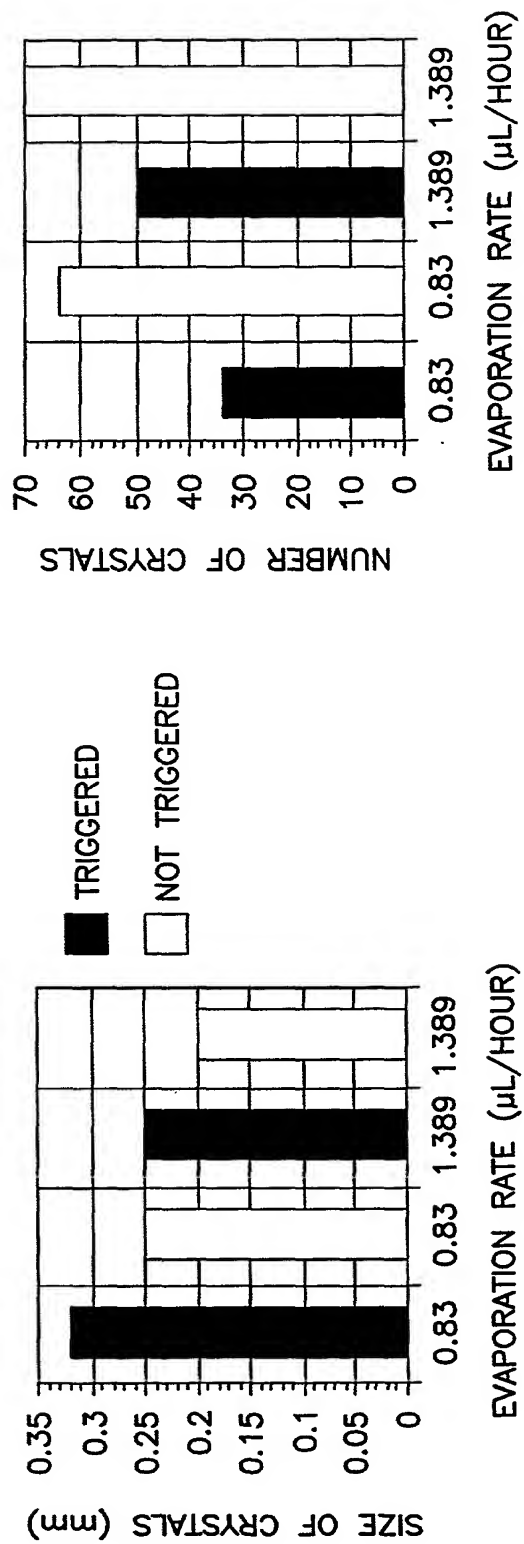
FIG. 13

DETECTION OF NUCLEATION BY LASER LIGHT SCATTERING AND  
RESPONSE BY MODIFYING THE RATE OF INCREASE IN  $\sigma$ .



- THE EVAPORATION PROFILE WAS  
MODIFIED IN RESPONSE TO  
NUCLEATION DETECTION

FIG. 14



LYSOZYME CRYSTAL GROWTH AT DIFFERENT EVAPORATION RATES, TRIGGERED AND NON-TRIGGERED.

FIG. 15

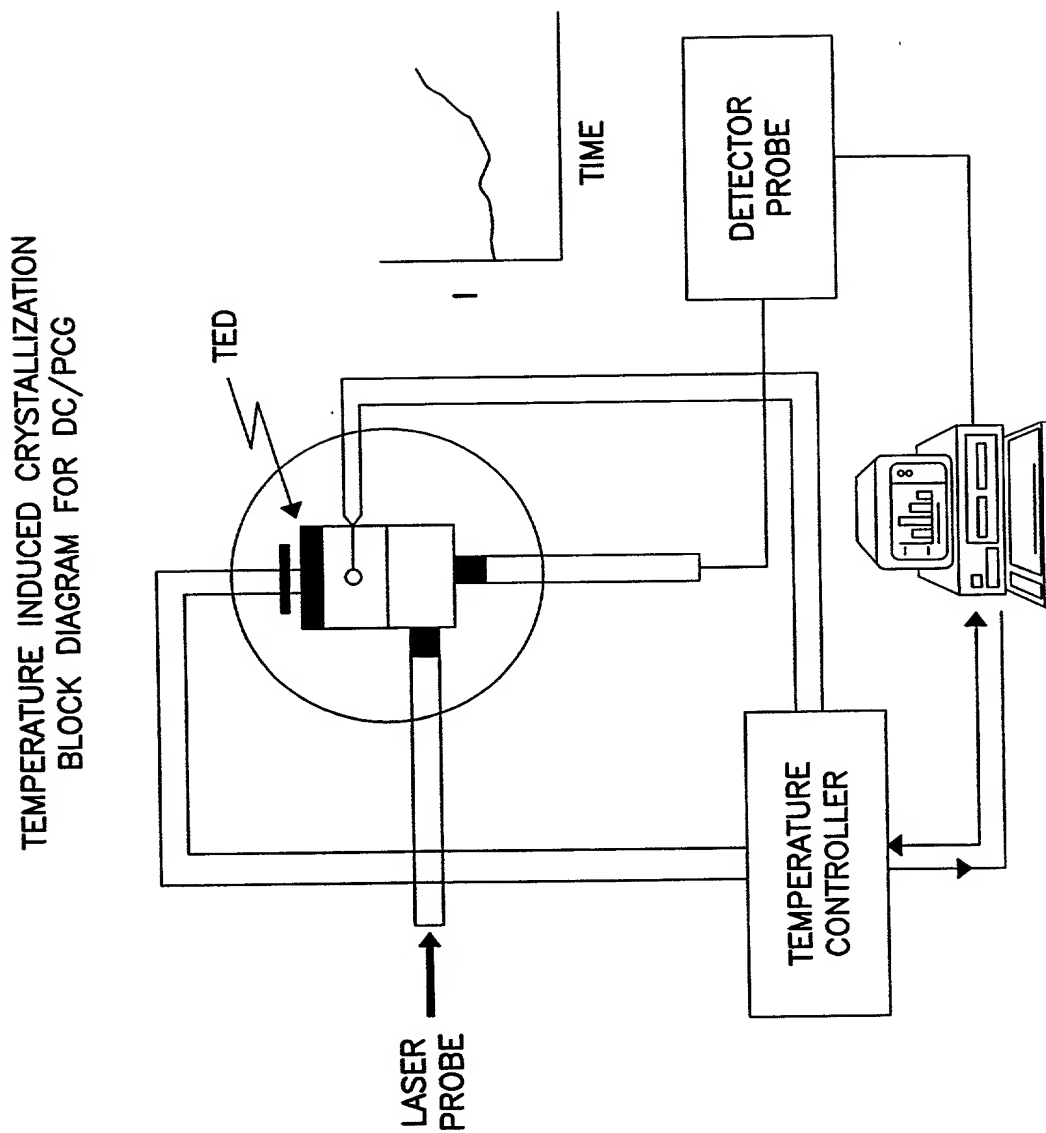


FIG. 16

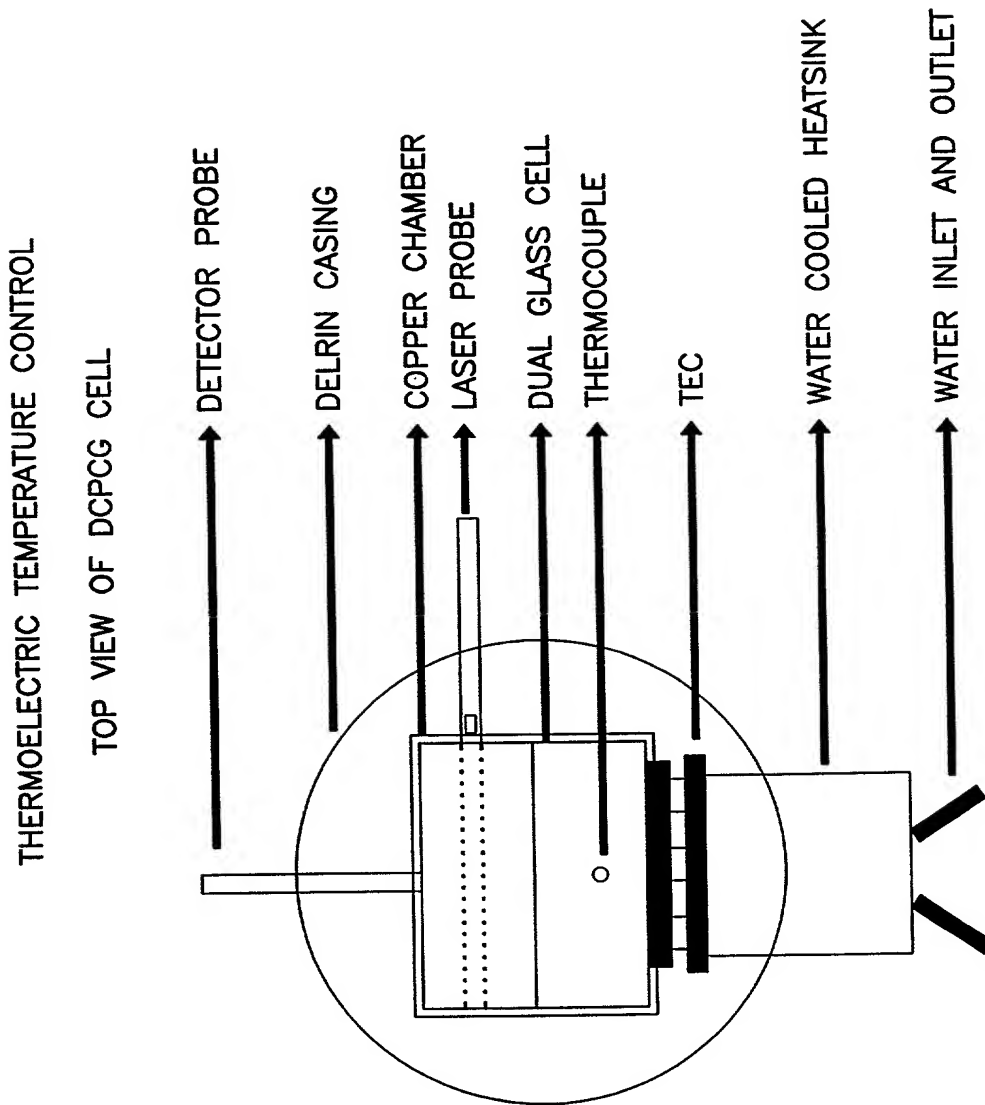
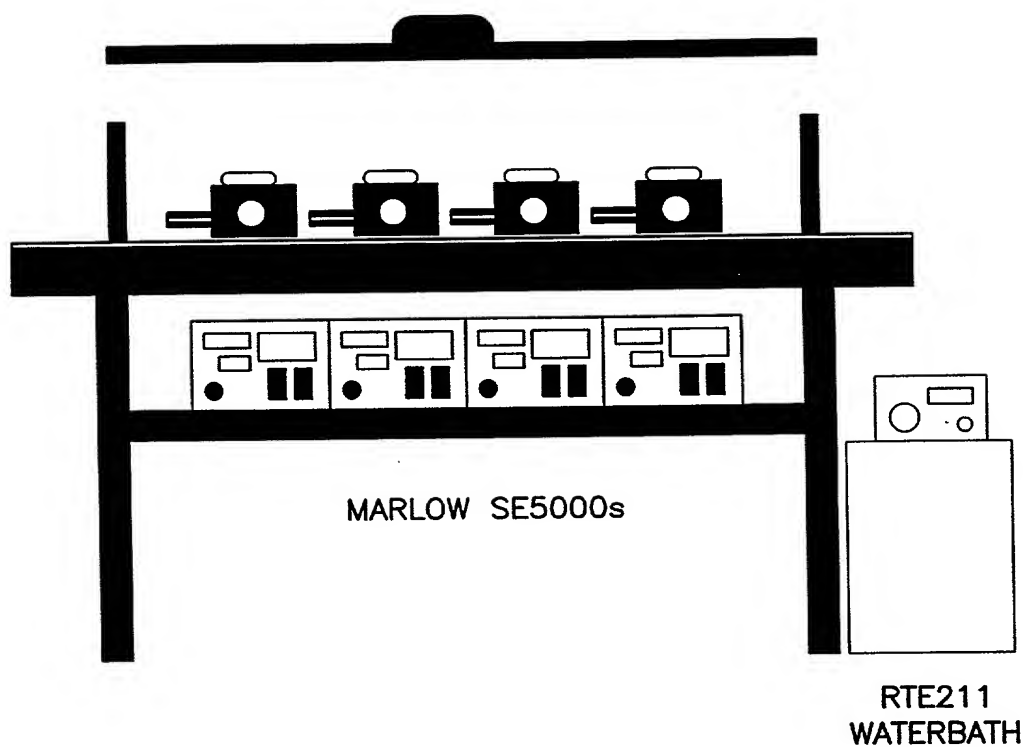


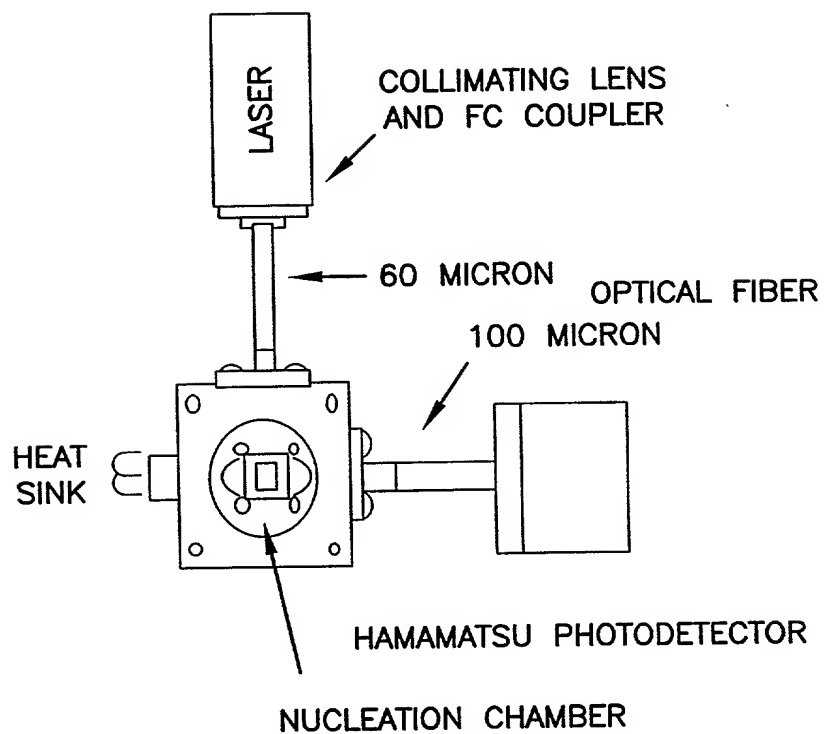


FIG. 17



DYNAMICALLY CONTROLLED TEMPERATURE SYSTEM SCHEMATIC.

FIG. 18



LASER LIGHT SCATTERING SCHEMATIC WITH NUCLEATION CHAMBER.

42.5 VOUT



FIG. 19 (CONTINUED)

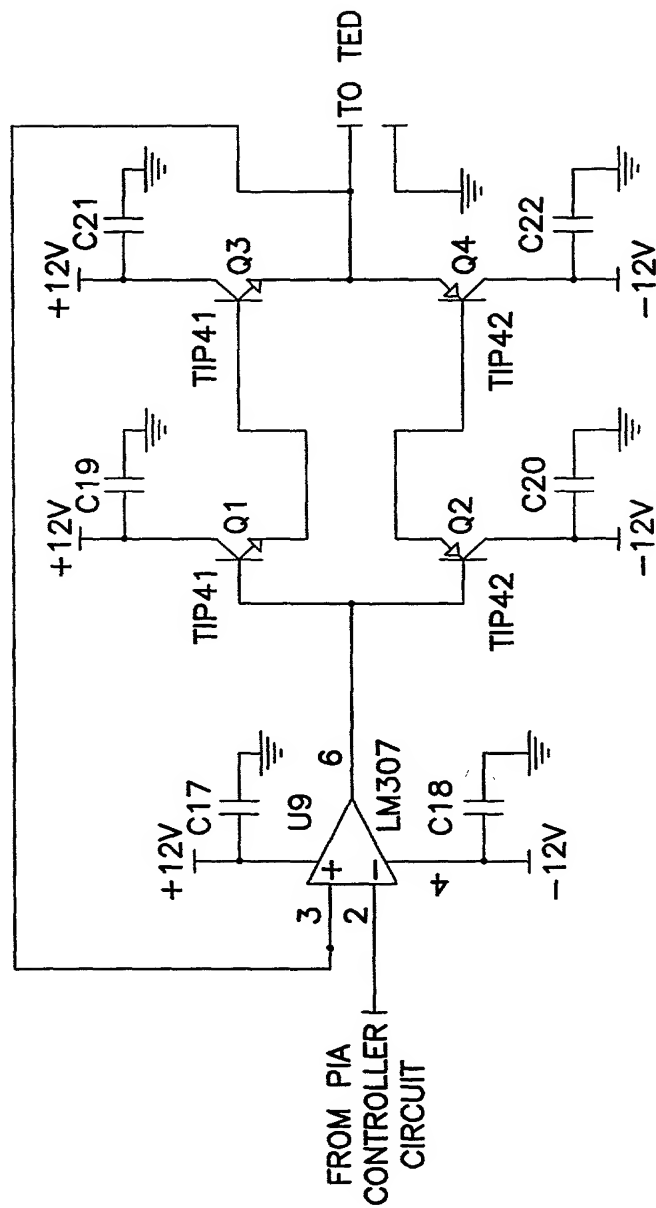


FIG. 19 (CONTINUED)

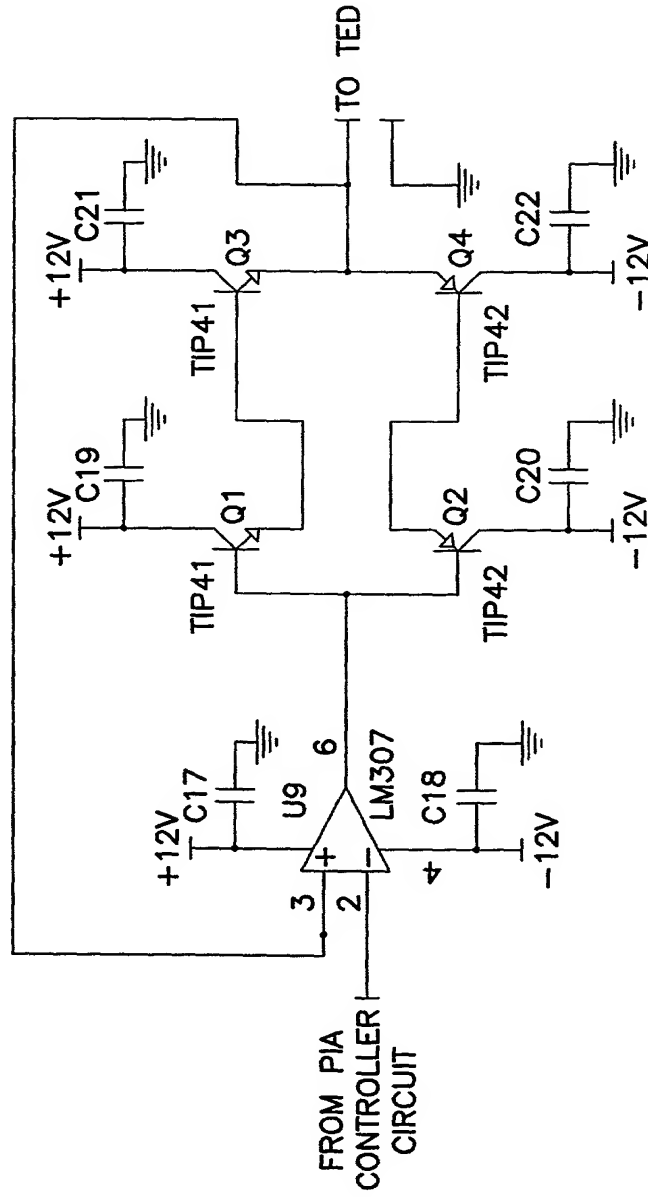
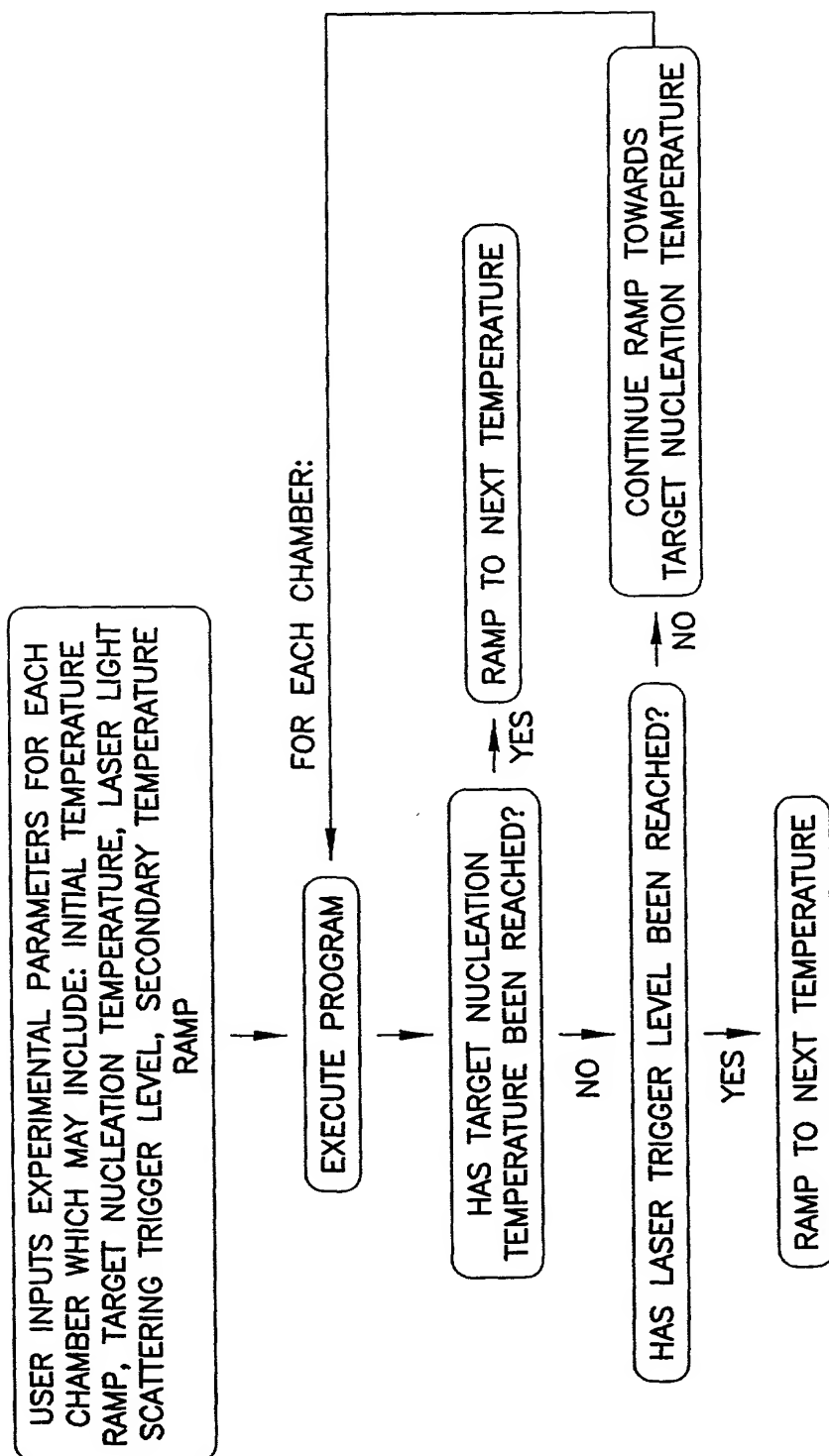
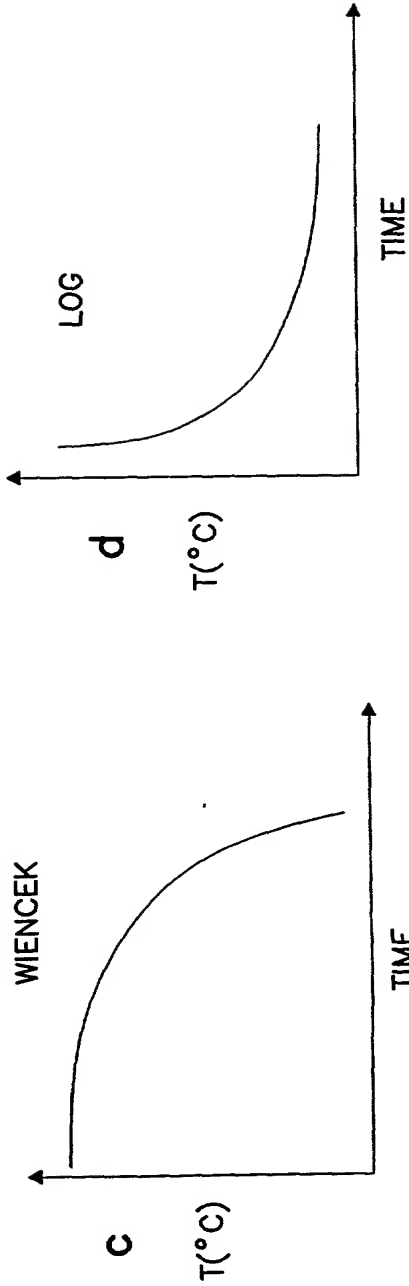
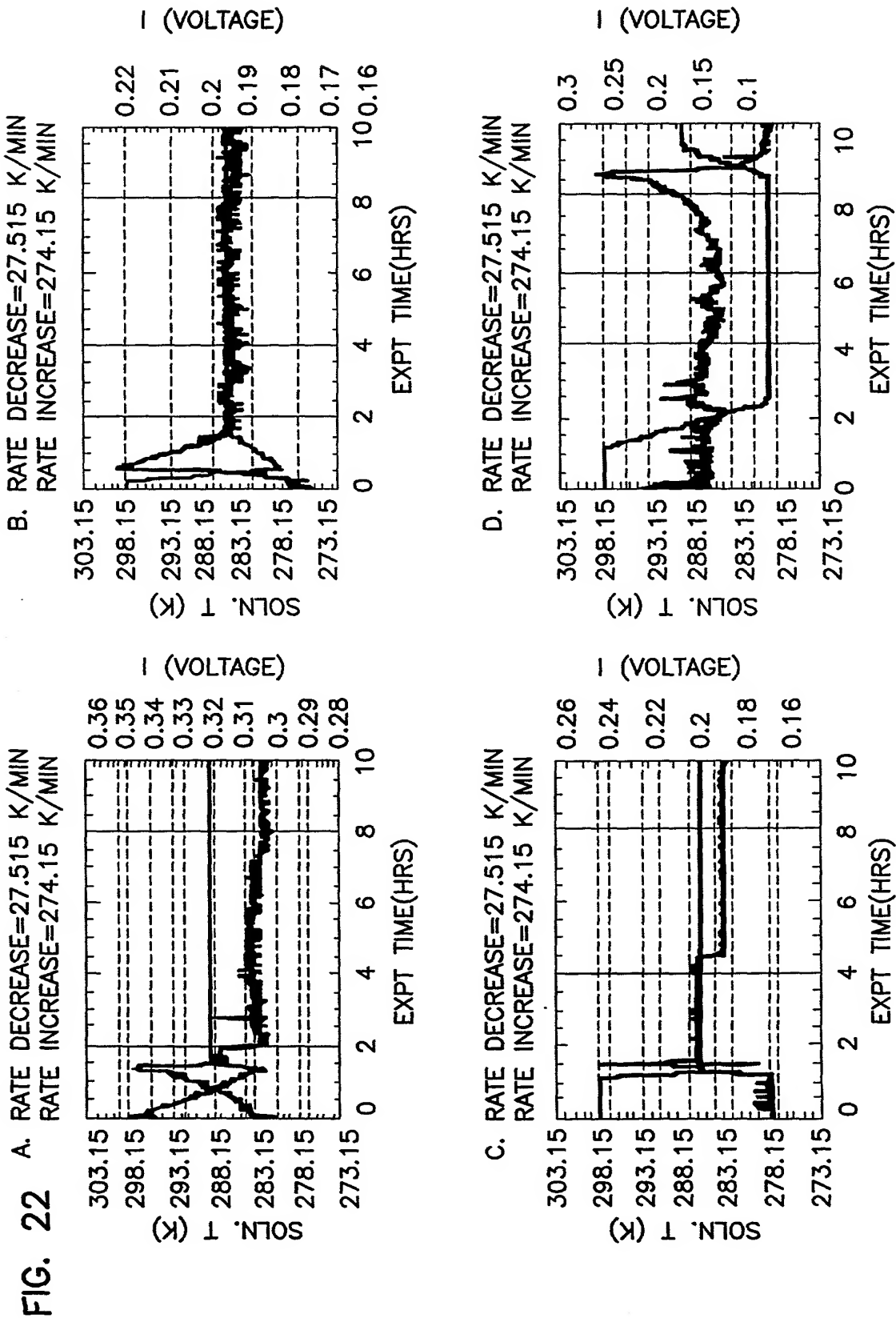


FIG. 20



## TEMPERATURE PROFILES





PLOTS OF VOLTAGE AND TEMPERATURE VERSUS EXPERIMENT TIME  
FOR LYSOZYME AGGREGATION.



FIG. 24(a)

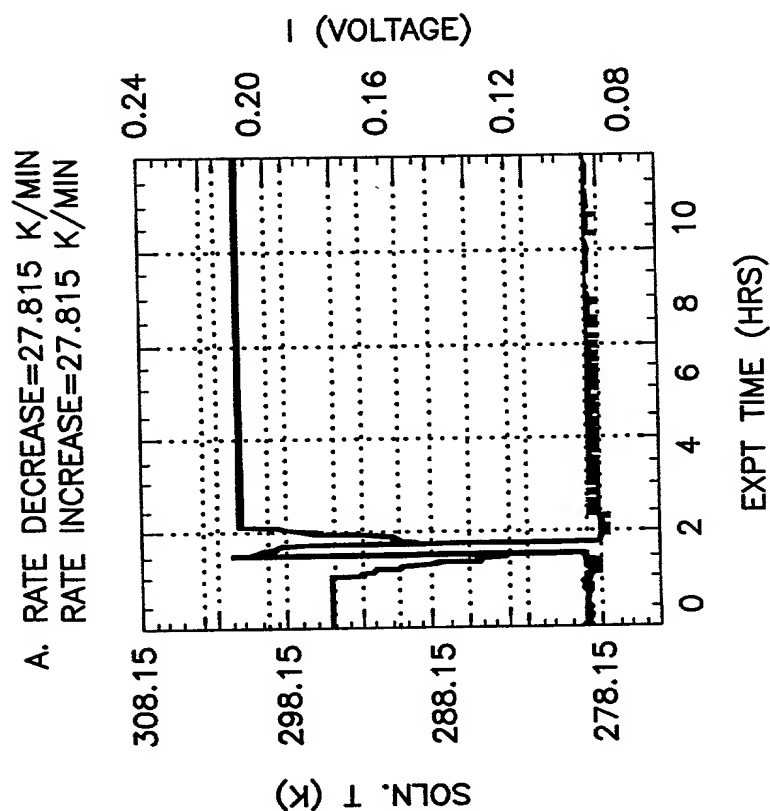
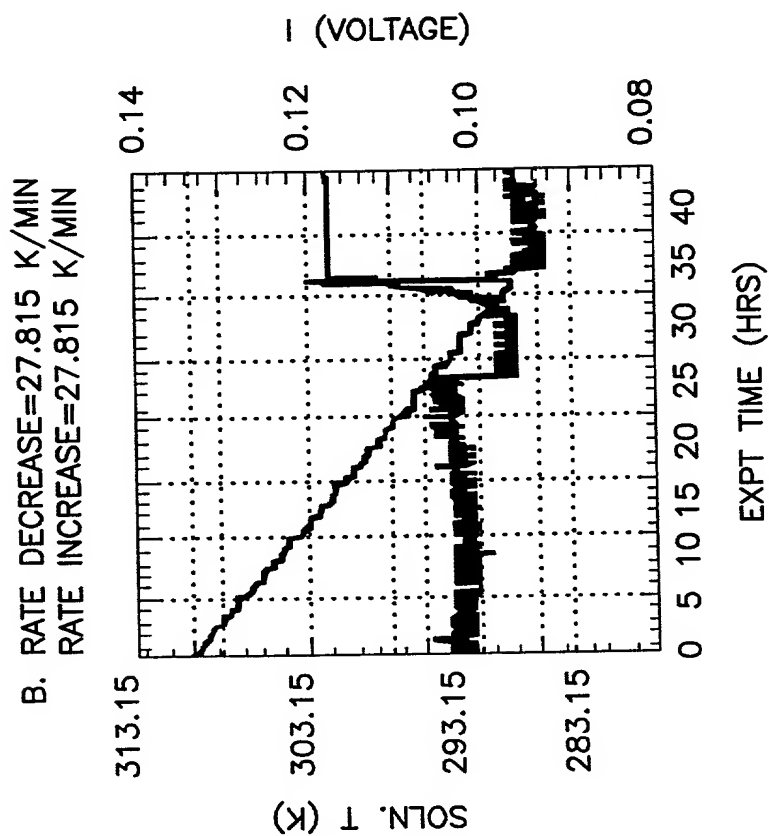


FIG. 24(b)



PLOTS OF VOLTAGE AND SOLUTION TEMPERATURE VERSUS EXPERIMENT  
TIME FOR BOVINE INSULIN AGGREGATION.

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FIG. 24(c)

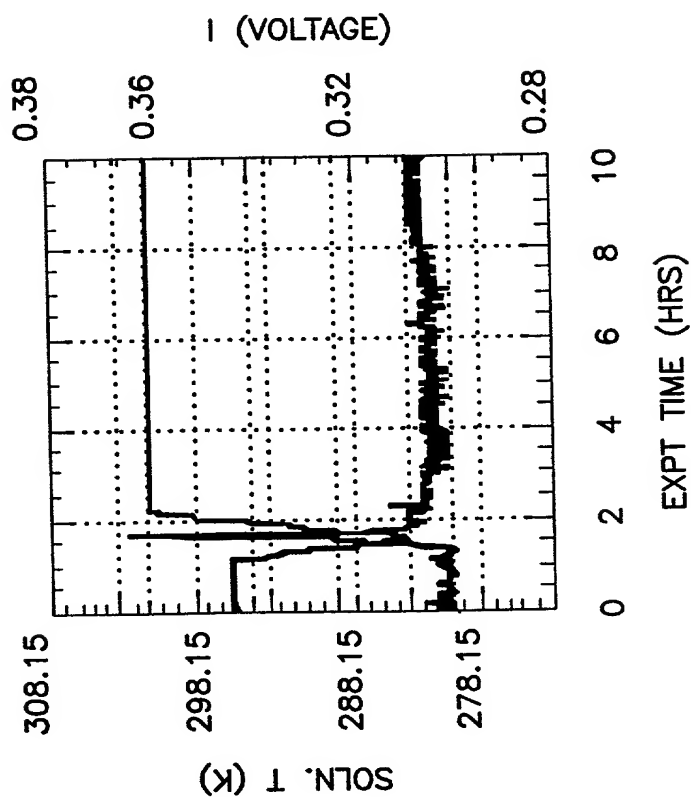
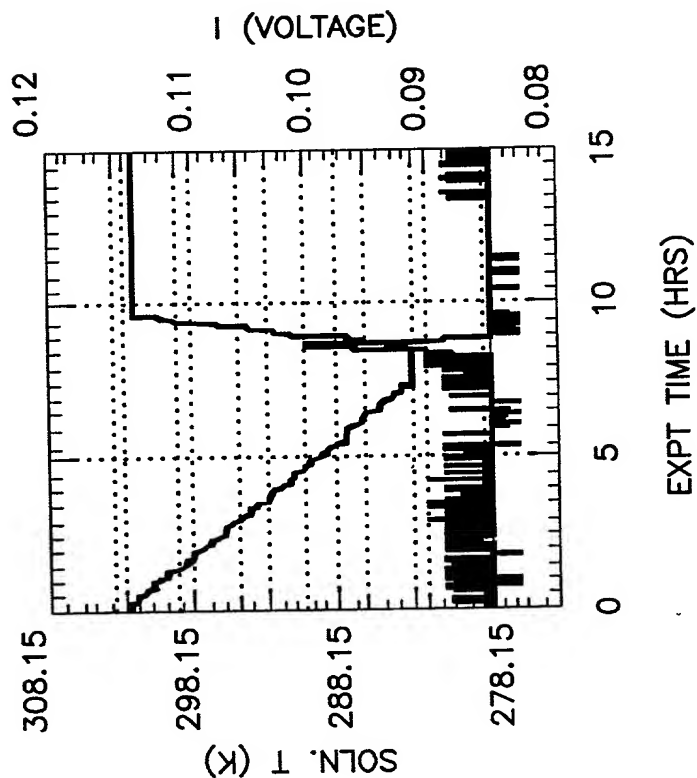


FIG. 24(d)



PLOTS OF VOLTAGE AND TEMPERATURE VERSUS EXPERIMENT  
TIME FOR PORCINE INSULIN AGGREGATION.

FIG. 25

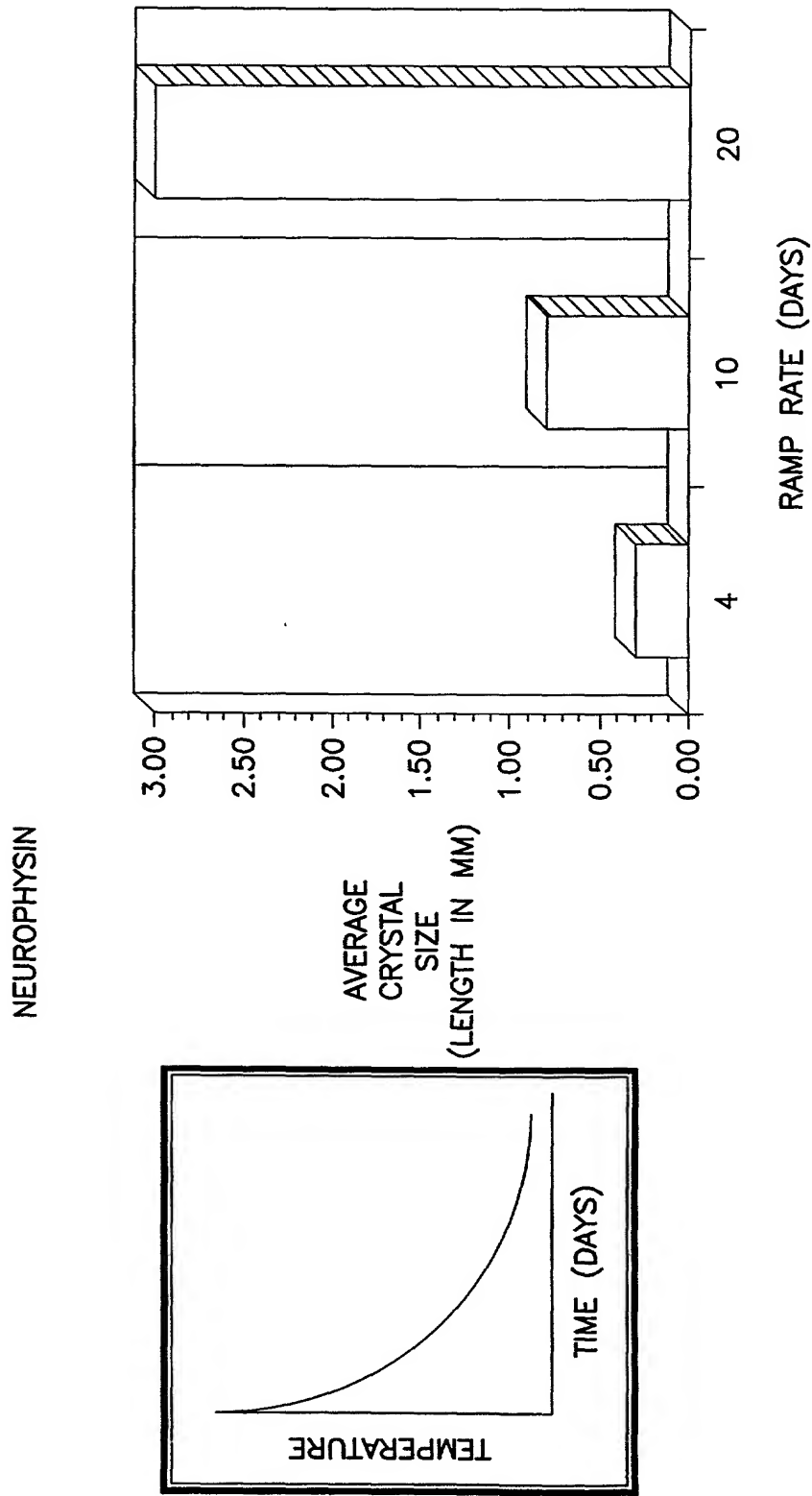
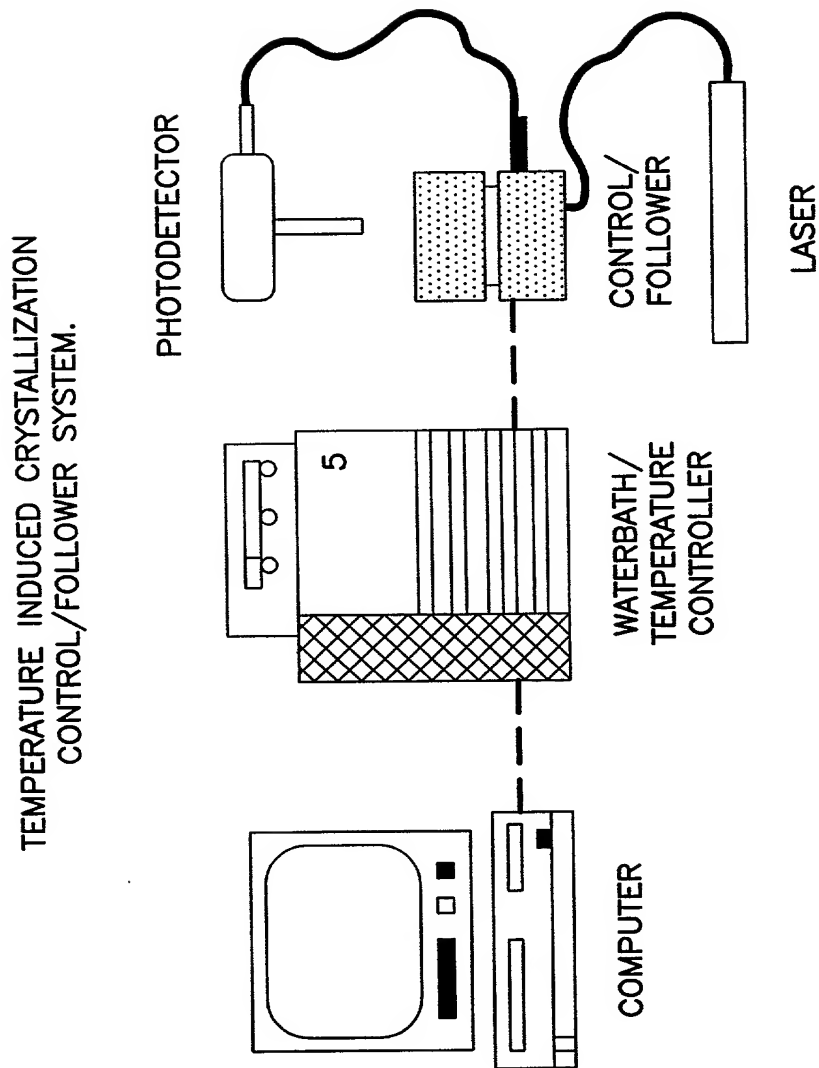
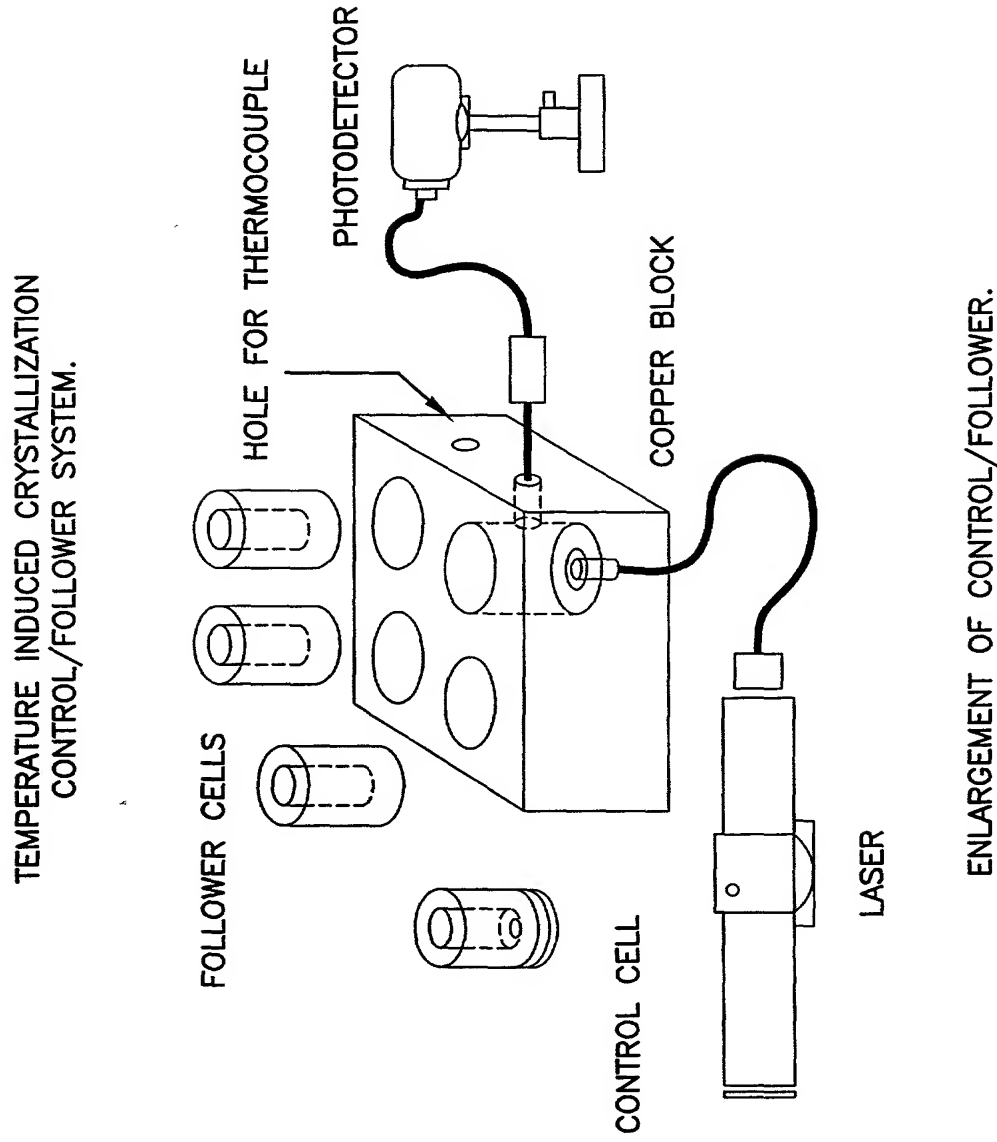


FIG. 26



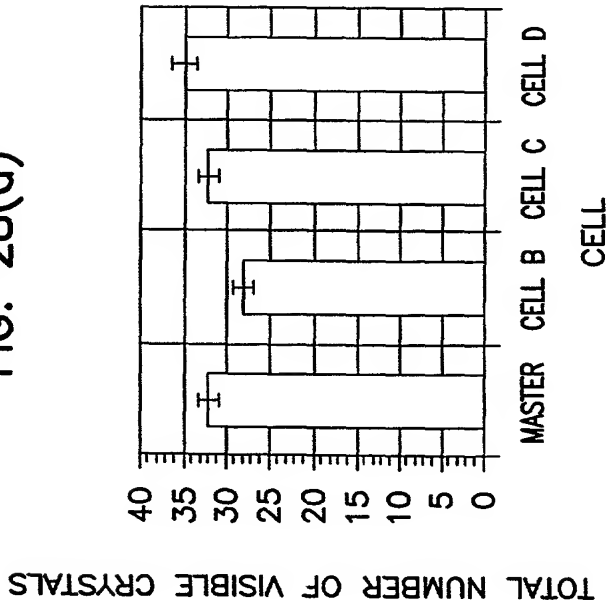
2092220 6 24 53 077

FIG. 27



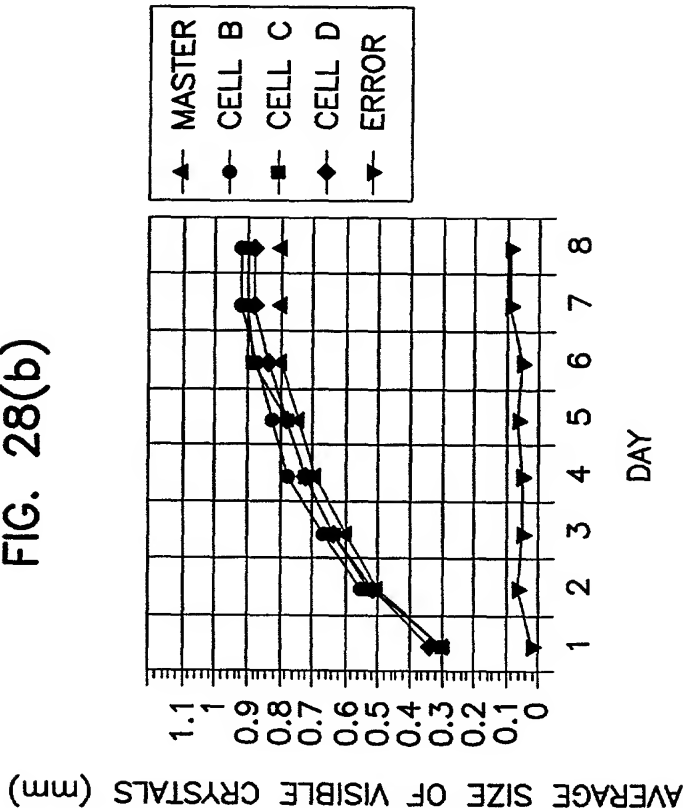
TEMPERATURE CONTROL/FOLLOWER RESULTS

FIG. 28(a)



CONTROL/FOLLOWER EXPERIMENT WITH  
LYSOZYME PROTEIN. CONCENTRATION  
IS 60 mg/ml WITH 2.0% NaCl.  
TEMPERATURE RAMP RATE IS 0.5 °C/min.  
GRAPH OF POPULATION IN INDIVIDUAL CELLS.

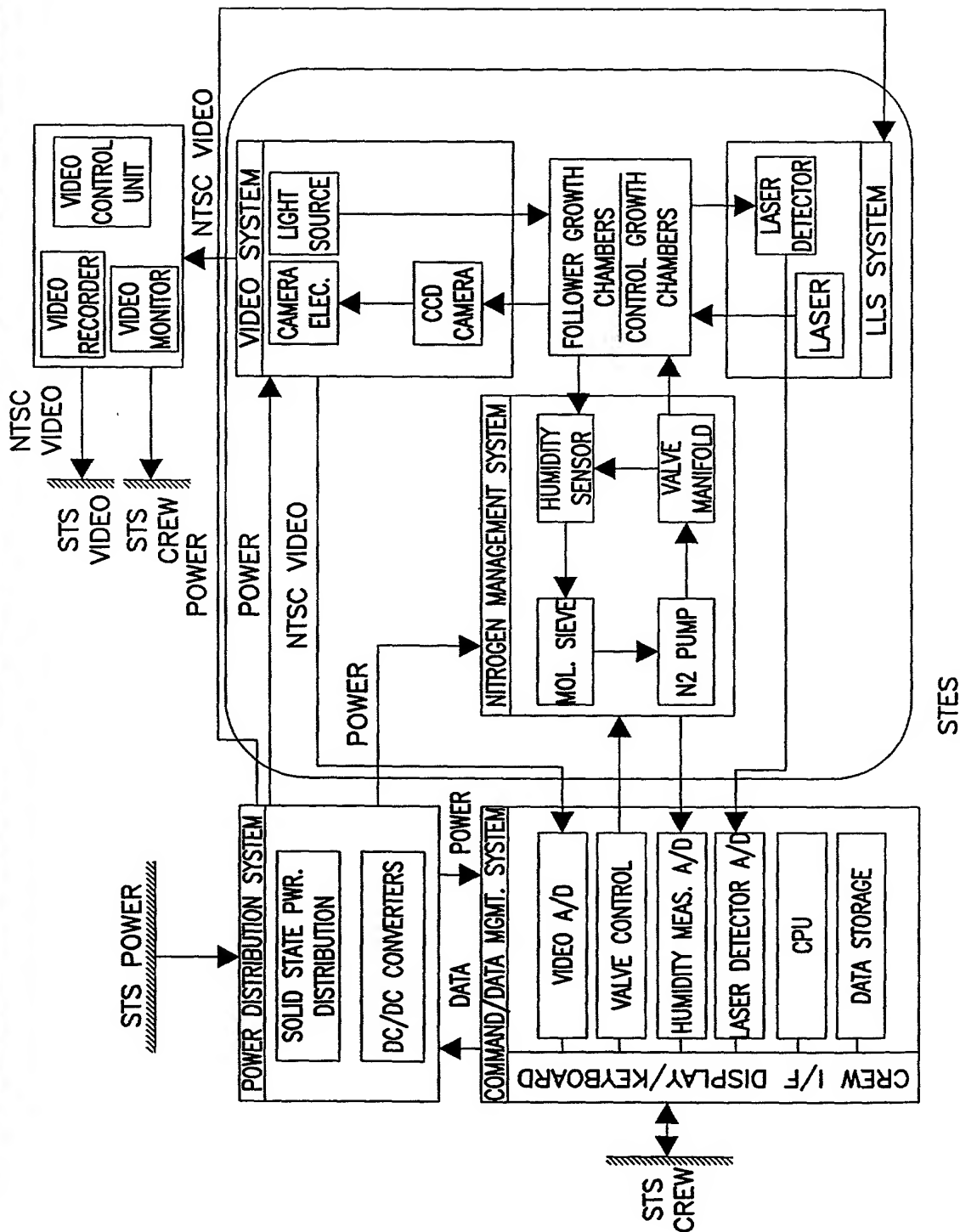
FIG. 28(b)



CONTROL/FOLLOWER EXPERIMENT WITH LYSOZYME  
PROTEIN. CONCENTRATION IS 60 mg/ml WITH 2.0%  
NaCl. TEMPERATURE RAMP RATE IS 0.5 °C/min.  
PLOT OF GROWTH OF CRYSTALS VS. TIME.

DC/PCG-V SYSTEM INTERFACES

FIG. 29



**FIG. 30**

